The Conference Board
Economic Research Program

Output & Employment: A 40-Year Perspective

Economic Road Maps
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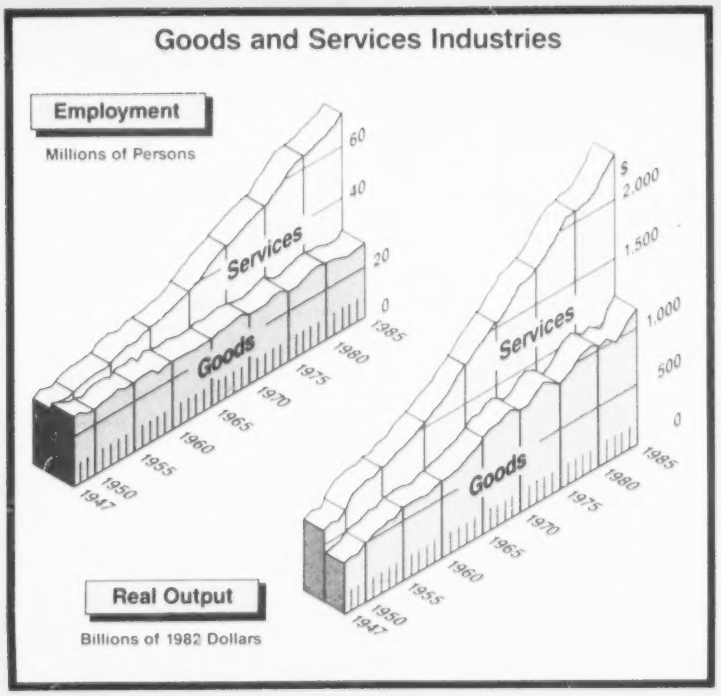
August, 1987

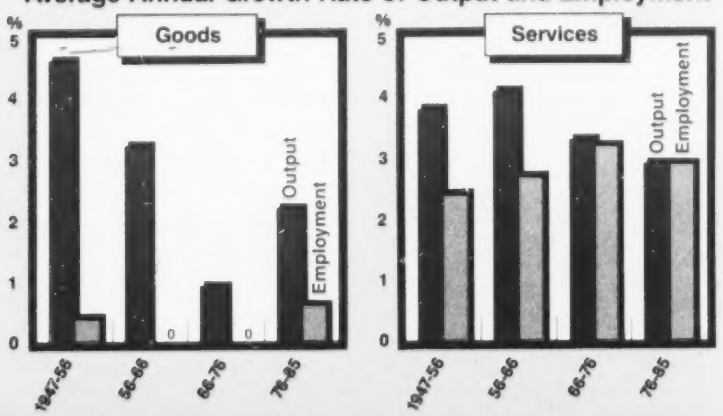
The United States is evolving from a goods-producing, manufacturing-based economy to one anchored in services and information. This specific transition to a "post-industrial" society is not a unique phenomenon. But the United States is the first (and largest) of the industrial countries to undergo the process. In an earlier era, workers "freed up" from the agricultural sector were utilized in manufacturing, and total output rose. In the current transition, labor is being made available to produce services, total output is rising, and the composition of output is evolving to meet a wider range of demands.



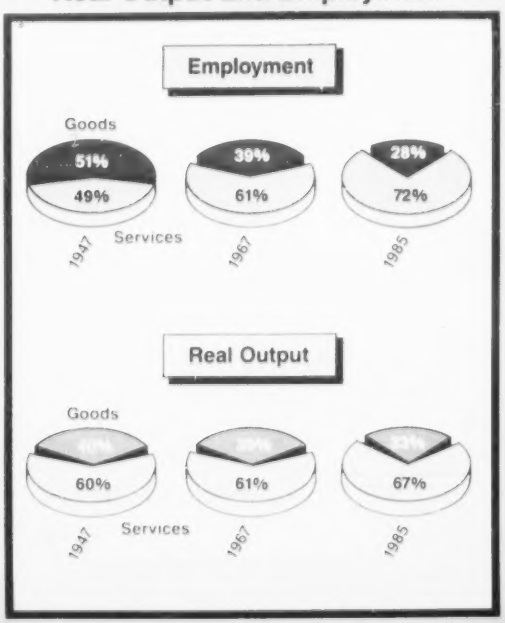
The U.S. labor market has been completely reshaped in the postwar period. In 1947, there were 52 million people employed, with more than half (28 million) engaged in goods production (manufacturing, mining and construction.) By 1985, total employment was nearly double but almost all of the net rise of 50 million jobs occurred in services. There was almost no net rise in goods-producing jobs.

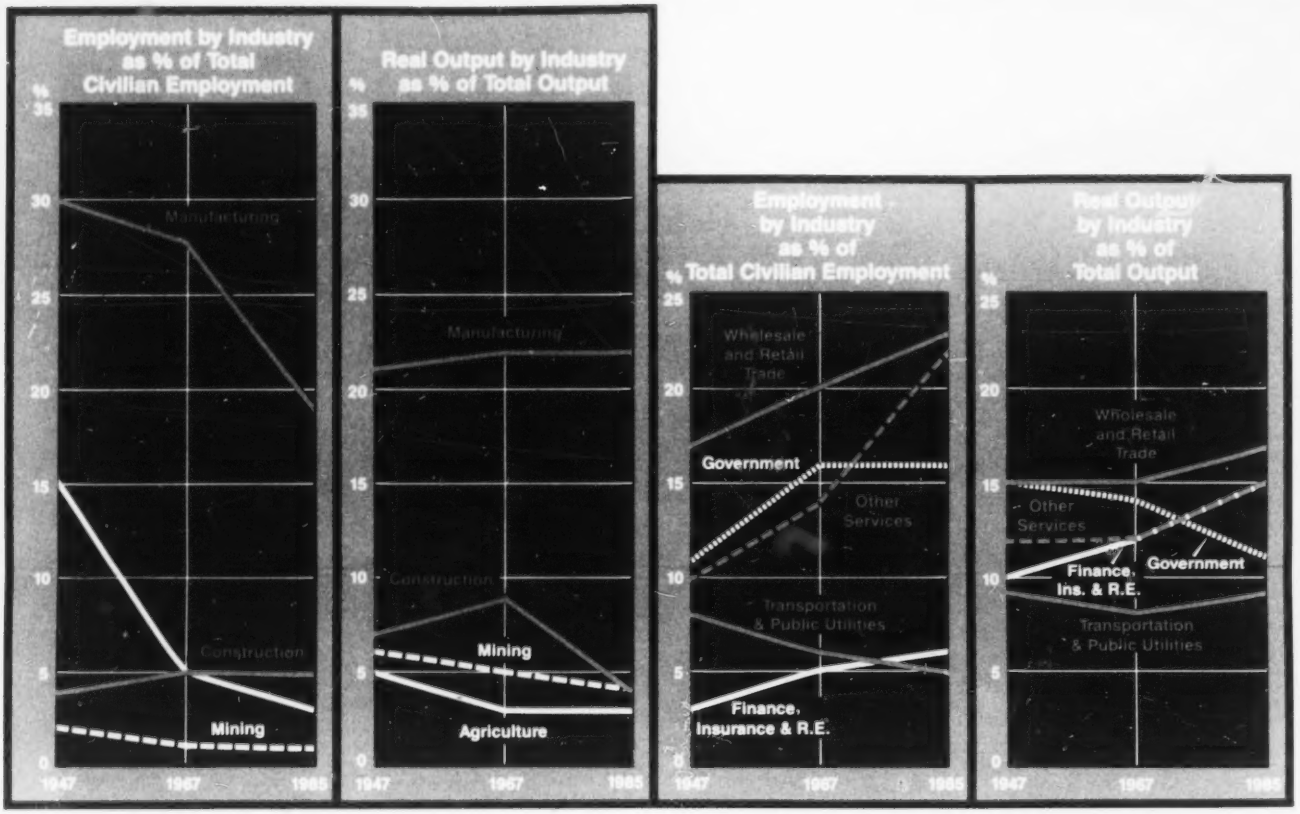
The composition of output changed more slowly than did the composition of employment. That reflects the fact that goods production rose as total production expanded, while goods employment remained stable. Over the period from 1947 to 1967,

Average Annual Growth Rate of Output and Employment



Distribution of Real Output and Employment

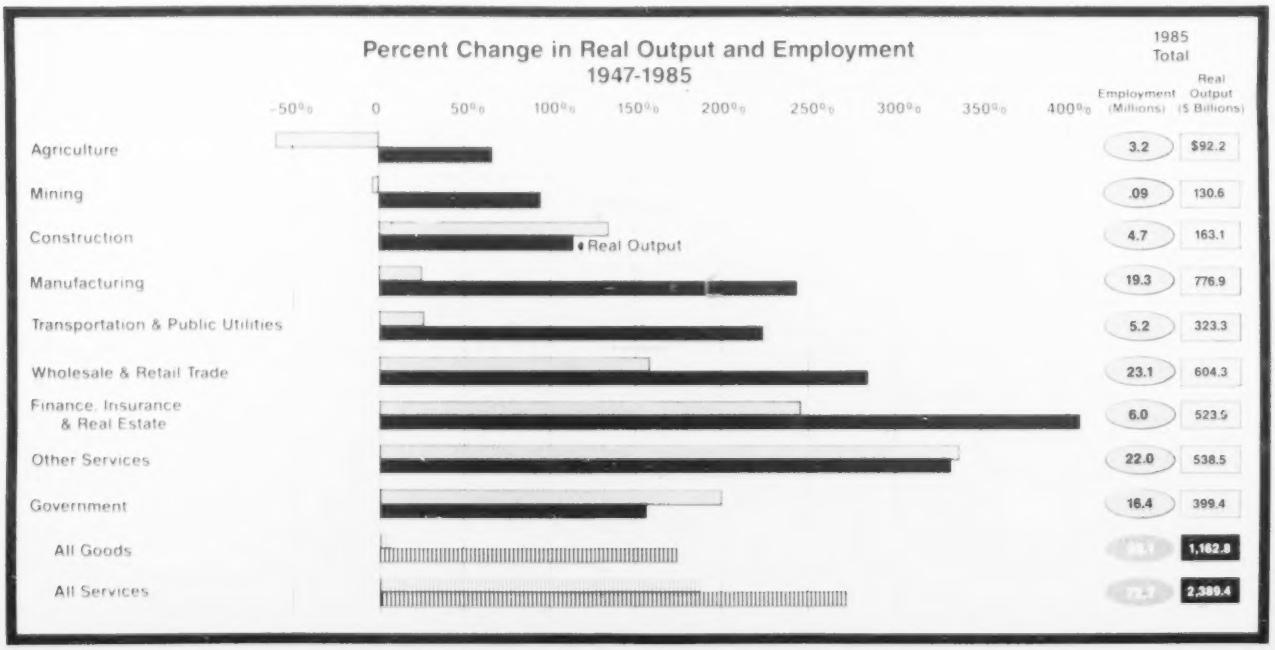


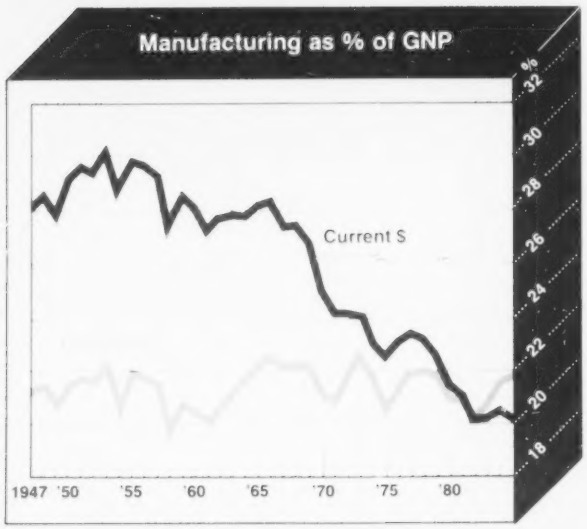


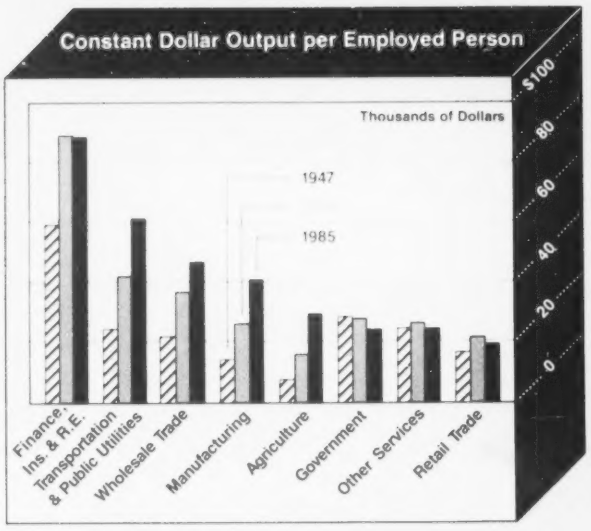
the rise in goods production matched the increase in economy-wide production. This pattern changed over the last 20 years, however, as growth in total output outpaced the rise in the production of goods. Over time, then, the output of goods as a share of total output declined from 40% in the late 1940s, to about 33% in 1985.

From 1947 to 1985, service employment rose from 49% to 72% of total jobs. Measured service output is estimated to have increased from 60% to 67 percent. That suggests little change in the output of services per hour of labor input over the last four decades. But there are analysts who question whether productivity in the service sector is being adequately measured.

How did the output of goods rise continually over four decades, while the employment level remained steady? The answer lies in increased labor productivity. Employees gain experience, undergo training, are given better tools and a more efficient flow of work is put in place. With a more highly trained and experienced work force, new technology, and better manage-





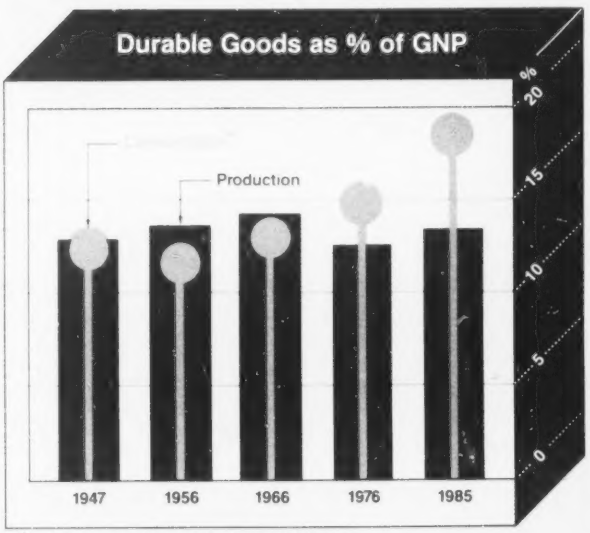


ment techniques, producers are able to turn out more and better goods, without having to increase the number of workers.

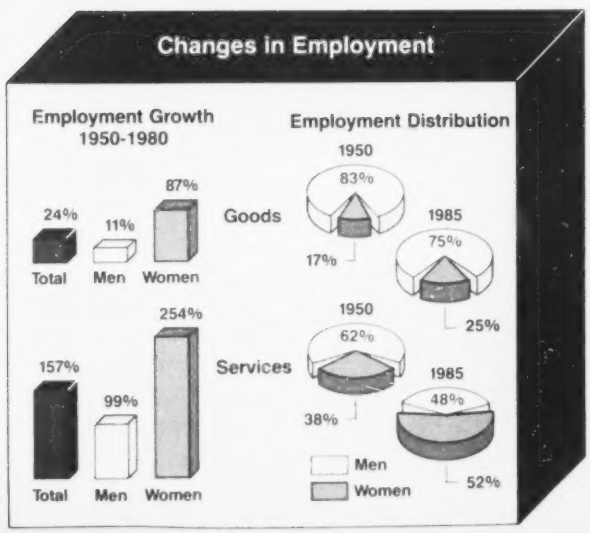
Higher productivity is associated with higher pay. During the postwar period, the added income was spent on the increased supply of available goods. Also, more people were employed in the distribution system, which was expanded to dispense those goods.

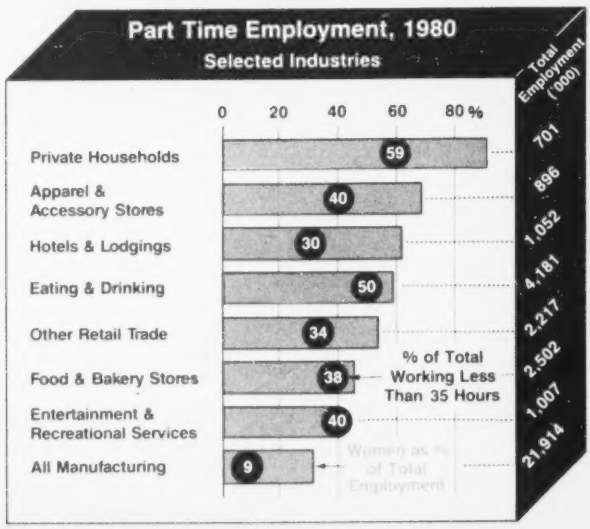
Given the meager net rise in goods-producing jobs, it was fortuitous that the growth in service employment remained very strong. The expansion of the service sector created employment opportunities for the baby-boom generation that began entering the labor force in the 1960s and 1970s. Job opportunities were also made available for the growing number of women entering the labor force.

More than half of all service jobs are held by women. One reason for this is that many of these jobs fit into time schedules that accommodate other aspects of their lives. Millions

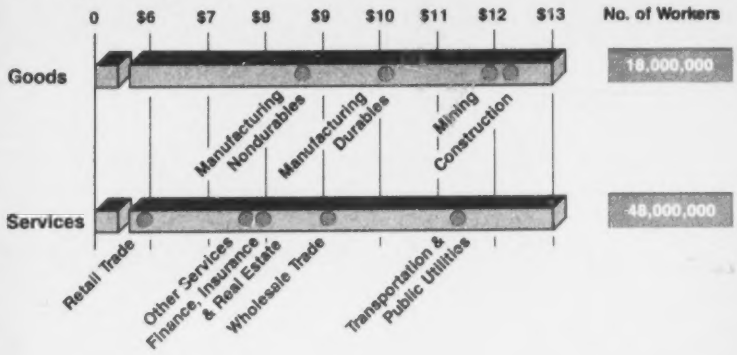


*Incl. Fixed Investment in Prod. Durables Equip.

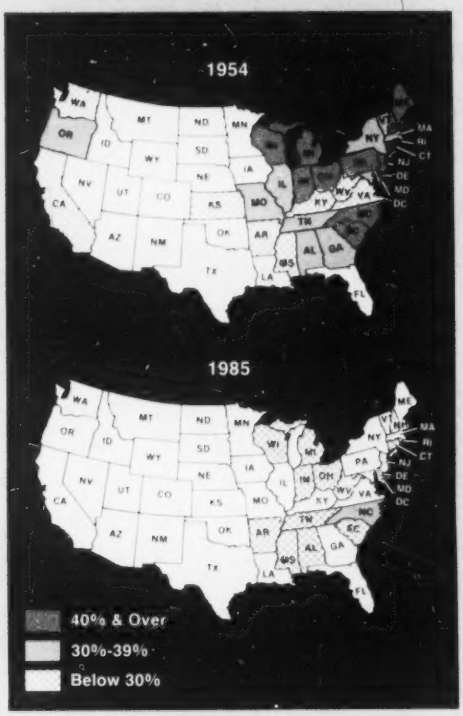




Average Hourly Wages of Production Workers by Sectors, 1985



States in which Manufacturing is the Largest Employer



Employment and Hourly Wages, 1985, Selected Industries

• Manufacturing

Industry	Average Hourly Earning ($)	Total Employment	% Change 1975-80	% Change 1980-85
Machinery, except Electrical	$10.29	1,311,000	+20	-18
Electrical & Electronic Equipment	9.47	1,305,000	+22	- 2
Transportation Equipment	12.72	1,251,000	+ 7	+ 1
Food & Kindred Prod.	8.57	1,122,000	+ 5	- 5
Apparel & Other Textile Prod.	5.73	948,000	+ 1	-12
Printing and Publishing	9.71	793,000	+12	+13
Rubber & Misc. Plastic Prod.	8.54	610,000	+20	+ 9
Chemicals & Allied Prod.	11.56	579,000	+ 8	- 8
Paper & Allied Prod.	10.82	516,000	+ 9	- 1
Leather & Leather Prod.	5.82	137,000	- 8	-30
Petroleum & Coal Prod.	14.06	107,000	+ 2	-14

• Services

Health Services	$ 8.05	5 617,000	+26	+20
Eating & Drinking Places	4.33	5,199,000	+35	+22
Business Services	8.18	3,859,000	+52	+43
Banking	6.84	1,256,000	+20	+ 4
Communications	11.74	1,006,000	+11	- 1
Amusement & Recrea. Svcs.	6.93	739,000	+27	+ 7
Legal Services	10.49	585,000	+40	+37
Motion Pictures	12.08	185,000	+ 6	- 3

of women work part time in apparel stores, hotels, eating and drinking establishments, etc. The limited work hours permit some women to devote time to education, to household tasks, and/or to attending to the care of children. However, polling routinely demonstrates that many part-time workers would prefer full-time jobs.

Eva Culen

SOURCES: U.S. Departments of Commerce and Labor; The Conference Board.

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